

IT IS CLAIMED

1. A method for detecting active ports of an electronic device, the electronic device including a plurality of ports including a first port, the method comprising:

5 automatically determining whether an external component is connected to the first port;

identifying the first port as an active port in response to a determination that an external component is connected to the first port;

10 identifying the first port as an inactive port in response to a determination that no external component is connected to the first port; and

distinguishing between active ports and inactive ports during control of the plurality of ports.

2. The method of claim 1 further comprising identifying the first port as an active port in response to detection of a capacitive load connected to the first port.

3. The method of claim 1 further comprising identifying the first port as an active port in response to detection of a resistive load connected to the first port.

20 4. The method of claim 1 further comprising identifying the first port as an active port in response to detection of an inductive load connected to the first port.

5. The method of claim 1 wherein said automatic determining includes detecting for a presence of a current flowing through the first port; and

25 identifying the first port as an active port in response to a determination that a current is flowing through the first port.

6. The method of claim 1 further comprising controlling identified active ports of the electronic device.

7. The method of claim 1 wherein the electronic device is a sequencer, and wherein the method further comprises sequencing only identified active ports of the electronic device.

5 8. The method of claim 1 wherein the external component is an open circuit.

9. The method of claim 1 wherein the external component is a closed circuit.

10 10. The method of claim 1 wherein the external component corresponds to a length of wire.

15 11. The method of claim 1 wherein the external component corresponds to a length of electroluminescent wire.

12. The method of claim 1 wherein the external component corresponds to a light emitting diode.

20 13. A computer program product, the computer program product including a computer usable medium having computer readable code embodied therein, the computer readable code comprising computer code for implementing the method of claim 1.

25 14. A method for sequencing selected ports of an electronic device, the electronic device including a first port and a second port, the method comprising:

automatically identifying active ports of the electronic device;

wherein an active port is characterized by a port which has an external load physically connected to it;

30 sequencing only desired active ports of the electronic device.

15. The method of claim 14 further comprising:

identifying non-active ports of the electronic device;  
wherein a non-active port is characterized by a port which is not physically connected to an external load; and  
ignoring non-active ports in sequencing operations performed by the electronic  
5 device.

16. The method of claim 14 further comprising identifying the first port as an active port in response to detection of a capacitive load connected to the first port.

10 17. The method of claim 14 further comprising identifying the first port as an active port in response to detection of a resistive load connected to the first port.

18. The method of claim 14 further comprising identifying the first port as an active port in response to detection of an inductive load connected to the first port.

15 19. The method of claim 14 wherein said automatic determining includes detecting for a presence of a current flowing through the first port; and

identifying the first port as an active port in response to a determination that a current is flowing through the first port.

20 20. The method of claim 14 wherein the external load is an open circuit.

21. The method of claim 14 wherein the external load is a closed circuit.

25 22. The method of claim 14 wherein the external load corresponds to a length of wire.

23. The method of claim 14 wherein the external load corresponds to a length of electroluminescent wire.

30 24. The method of claim 14 wherein the external load corresponds to a light emitting diode.

25. A computer program product, the computer program product including a computer usable medium having computer readable code embodied therein, the computer readable code comprising computer code for implementing the method of  
5 claim 14.

26. A system for detecting active ports of an electronic device, the electronic device including a plurality of ports including a first port, the system comprising:

10 at least one processor; and

memory;

the system being configured or designed to automatically determine whether an external component is connected to the first port;

15 the system being further configured or designed to identify the first port as an active port in response to a determination that an external component is connected to the first port;

the system being further configured or designed to identify the first port as an inactive port in response to a determination that no external component is connected to the first port; and

20 the system being further configured or designed to distinguish between active ports and inactive ports during management of the plurality of ports.

27. The system of claim 26 being further configured or designed identify the first port as an active port in response to detection of a capacitive load connected to the first port.

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28. The system of claim 26 being further configured or designed identify the first port as an active port in response to detection of a resistive load connected to the first port.

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29. The system of claim 26 being further configured or designed identify the first port as an active port in response to detection of an inductive load connected to the first port.

30. The system of claim 26 being further configured or designed to detect for a presence of a current flowing through the first port; and

5 the system being further configured or designed to identify the first port as an active port in response to a determination that a current is flowing through the first port.

31. The system of claim 26 being further configured or designed to control identified active ports of the electronic device.

10 32. The system of claim 26 wherein the electronic device is a sequencer, and wherein the system is further configured or designed to sequence only identified active ports of the electronic device.

15 33. The system of claim 26 wherein the external component is an open circuit.

34. The system of claim 26 wherein the external component is a closed circuit.

20 35. The system of claim 26 wherein the external component corresponds to a length of wire.

36. The system of claim 26 wherein the external component corresponds to a length of electroluminescent wire.

25 37. The system of claim 26 wherein the external component corresponds to a light emitting diode.

30 38. A sequencing system comprising:  
at least one processor;  
memory; and  
a plurality of ports;

the sequencing system being configured or designed to automatically identify active ports of the plurality of ports;

wherein an active port is characterized by a port which has an external component physically connected to it;

5 the sequencing system being further configured or designed to sequence only desired active ports.

39. The sequencing system of claim 38 being further configured or designed to identify non-active ports;

10 wherein a non-active port is characterized by a port which is not physically connected to an external component; and

the sequencing system being further configured or designed to ignore non-active ports in sequencing operations performed by the electronic device.

15 40. The sequencing system of claim 38 being further configured or designed to identify the first port as an active port in response to detection of a capacitive load connected to the first port.

20 41. The sequencing system of claim 38 being further configured or designed to identify the first port as an active port in response to detection of a resistive load connected to the first port.

25 42. The sequencing system of claim 38 being further configured or designed to identify the first port as an active port in response to detection of an inductive load connected to the first port.

43. The system of claim 38 being further configured or designed to detect for a presence of a current flowing through the first port; and

30 the system being further configured or designed to identify the first port as an active port in response to a determination that a current is flowing through the first port.

44. The sequencing system of claim 38 wherein the external component is an open circuit.

45. The sequencing system of claim 38 wherein the external component is a  
5 closed circuit.

46. The sequencing system of claim 38 wherein the external component corresponds to a length of wire.

10 47. The sequencing system of claim 38 wherein the external component corresponds to a length of electroluminescent wire.

48. The sequencing system of claim 38 wherein the external component corresponds to a light emitting diode.

15 49. The sequencing system of claim 38 further comprising an active port detection circuit configured or designed to automatically identify active ports of the plurality of ports.

20 50. The sequencing system of claim 49, wherein the active port detection circuit is further configured or designed to store active port information relating to IDs of the identified active ports.

25 51. The sequencing system of claim 50 further comprising a sequencer which is configured or designed to use the active port information when performing sequencing operations on the plurality of ports, wherein the only selected active ports are sequenced.